

**The 2001 Regional Transportation Plan
Equity Analysis and Environmental Justice Report**

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**Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607**

ENVIRONMENTAL JUSTICE REPORT FOR THE 2001 RTP

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CHAPTER 1: OVERVIEW

The purpose of considering environmental justice issues in the context of developing the long range Regional Transportation Plan (RTP) is to: 1) ensure inclusion of minority and low-income communities in the transportation planning process; and, 2) to ensure the communities of concern enjoy equally in the benefits of the transportation network without bearing a disproportionate share of the burdens of the transportation network. Environmental justice and Title VI (the Civil Rights Act of 1964) are not new concerns. Today, because of the evolution of the transportation planning process, they are receiving greater emphasis. These two issues are the core concern of the Equity Analysis for the 2001 RTP.

As of this date, the US DOT has not issued any specific planning guidelines for metropolitan planning organizations on implementing environmental justice; therefore, it is up to each agency to determine how best to comply. The 1998 RTP included an Equity Analysis which addressed the changes in mobility for 38 selected disadvantaged communities and was one of the first of its kind among Metropolitan Planning Organizations for addressing equity issues in the context of long range plans.

In June 1999, the Federal Highway Administration and Federal Transit Administration conducted a triennial review of the overall transportation planning process in the Bay Area and MTC's accomplishments related to the President's Executive Order on Environmental Justice. Their certification report, issued in July 2000, cites many exemplary areas of MTC work, including initiatives in the environmental justice arena. It also required, as a condition of our recertification, that MTC do more to involve the environmental justice community in developing the social equity analysis, including performance criteria and subsequent evaluation. A copy of the certification letter is provided in Appendix B to this report. In response to these recommended actions, MTC convened the Environmental Justice Advisory Group (EJAG) to review and assist MTC in crafting the analysis for the new 2001 RTP. MTC's standing Minority Citizen's Advisory Committee was also consulted in the development of the methodology and approach.

From the beginning, it was clear that the equity issues of concern for advocates and community based organizations were much broader than developing the RTP methodology itself. In fact, it seemed from the discussion and letters that the Equity Analysis was of secondary interest and of primary interest were plans, programs and activities such as the proposed increase in the size of the Transportation For Livable Communities program, developing a Lifeline Transit Network, community transportation plans, and identifying ways to provide resources and support for members of low-income and transit dependent people. These were fruitful discussions, and the products of those discussions are reflected in this report and in the Overall Work Program for the MTC. As many participants readily pointed out, answers to the question of what constitutes equity in the transportation planning and funding process are by no means obvious or easy to define. Additionally the determination of benefits by community or population group is a complex task and presents considerable challenges in drawing meaningful conclusions from such an analysis. Further, many equity concerns are focused on community level impacts in a plan that is regional in scale and covers a 25 year planning time horizon.

A number the participants in the equity discussions expressed a strong interest in immediate and tangible results for their communities, whereas the RTP is intended, by its nature, to serve as a policy and investment guide covering a 20+year timeframe. In the end, the equity analysis took on two aspects:

- 1) an analytical approach applying performance measures to evaluate how transportation investment decisions would affect the mobility of targeted low income and minority communities; this analysis also was designed to make the funding decisions in the RTP more transparent from an equity perspective, particularly with respect to funding for transit; and
- 2) a separate set of equity initiatives that were geared to specific issues raised during the process, which could have more immediate social benefits. These initiatives are described in Chapter 6 of this report.

1.1 Background on Environmental Justice

There are three Environmental Justice (EJ) principles which are most directly related to the development of the Regional Transportation Plan:

- Ensure the full and fair participation by all potentially affected communities in the transportation decision making process
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by low income and minority populations
- Avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations. This would include the overall investment strategy for the RTP.

Federal agencies have a key role in overseeing the application of these principles which derives from Federal Executive Order 12898 promulgated by President Clinton's Administration.

Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Executive Order 12898
Federal Actions to Address Environmental Justice
In Minority Populations and Low-Income Populations

This Executive Order prompted all departments of the Federal government to evaluate the business practice of their offices and the offices over which they have oversight. The U.S. DOT Order applies to all policies, programs, and other activities that are undertaken, funded, or approved by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), or other U.S. DOT components.

1.2 Environmental Justice in Transportation is a Shared Responsibility

Environmental justice in transportation is a shared responsibility among many different actors.

- **MTC**-develops regional transportation policy and implements these policies through fund programming decisions; MTC also advocates for new funding to cover a variety of unmet transportation needs.
- **Congestion Management Agencies**- performing similar functions to MTC at the county level, these agencies often prepare countywide transportation plans and set local investment priorities for projects that are to be advanced through the master state funding program, called the State Transportation Improvement Program. These county agencies sometimes manage funds generated by local sales tax revenues approved by the voters for transportation purposes.
- **Transit operators**-determine the quality and quantity of service to communities, based on the financial resources at hand. The vast majority of their resources are local or statutorily provided directly to the transit operators.
- **Caltrans and California Transportation Commission (CTC)**. The CTC is the policy body for a large source of highway funds for inter regional and intermodal projects. The CTC and Caltrans are to consult with regional agencies on the proposed expenditures for these funds.
- **County Social Service Agencies** play a role in ensuring their clients' mobility as Calworks participants transition to the workforce.
- **Project sponsors**-project sponsors may be Caltrans, county sales tax authorities, cities, counties, transit operators, etc. These agencies implement projects in terms of defining alignments, evaluating potential environmental impacts (such as air quality, noise, and environmental justice concerns for federally funded projects), developing appropriate mitigation measures, and subsequently constructing, operating, and maintaining the project.

In terms of MTC's responsibilities, the Commission starts from a strong planning and policy basis in further considering environmental justice issues in the transportation arena.

- The draft 2001 RTP which this report addresses continues to fully fund the capital replacement needs of the Bay Area transit operators, ensuring that the transit systems that exist today will be well maintained into the future. This is a continuation of the policy established in the 1998 RTP.
- Similarly, the draft 2001 RTP funds extensive pavement rehabilitation for local streets and roads. This would benefit cities in the urban core, with the older infrastructure and greater maintenance needs.
- The draft 2001 RTP proposes to triple the flexible federal funding available for MTC's successful Transportation for Livable Communities program. While not specifically targeted to disadvantaged communities, a number of disadvantaged communities (for example, West Oakland, North Richmond, and Bayview/Hunters Point) have participated in this program.
- MTC has sponsored Welfare to Work plans in all nine Bay Area counties to assist the approximately 59,000 people make the transition. To back up the recommendations coming out of these plans, MTC further launched the Low Income Flexible Transportation Program (LIFT) by providing \$5 million in new federal funds to

supplement existing transportation services over the next three years matched 50/50 by project sponsors which represents a total investment of \$10 million.

- Significant strides have been made to implement the universal transit ticket and provide transit information over the telephone to help plan trips.
- Five regional agencies, including MTC, are currently conducting a SMART Growth planning exercise to re-evaluate the regions' growth patterns, in terms of sustainability and need for compact growth. Affordable housing and transportation issues are part of this agenda.

1.3 Overview of Findings

The Equity Analysis applied a series of performance measures to the RTP investment alternatives. The measures were intended to evaluate how low-income and minority communities fared under RTP investments. In the comparisons, low-income and minority communities fared as well or better than other communities. Transit and auto accessibility are higher in the low-income and minority areas for 1998 and in 2025. These communities enjoy a higher level of accessibility with RTP investments. Some of the findings are listed below:

- 7.5% of Bay Area households will not have a vehicle in 2025. In the 42 target communities selected for the analysis, it is predicted that 15.2 percent of all households will not have a vehicle.
- Over half of the region's car-less households reside within the 42 communities selected for the analysis.
- Accessibility by transit increases with the RTP, and transit accessibility is higher from low-income and minority communities.
- Accessibility by auto remains relatively constant for all groups among all alternatives.
- Transit travel times decrease in the RTP due to the number of new rail extensions and other transit service improvements.
- Traditional job centers have small improvements in transit travel time as they are already well served by rapid rail and bus.
- Average travel times increase from 1998 to 2025 for minority, non minority, low-income and not-low-income communities, but at a lower rate for minority and low-income neighborhoods.
- Average travel time for non-work trips is slightly higher for minority and low-income areas when compared to non-minority and not-low income areas.
- The number of low-income households is projected to decline as incomes are expected to rise over time according to projections provided by the Association of Bay Area Governments.

- Committed funds over which MTC has control are \$12.7 billion for 25 years, of which 73% is dedicated to transit.
- There are \$81.6 billion for 25 years in transportation funds in the RTP, of which 80% are dedicated to transit.
- Even within the discretionary Track 1 program which is primarily funded through flexible highway dollars, 46% of the resources are dedicated to public transit.

At first glance, the findings in the equity analysis may surprise many. How is it that accessibility is better for disadvantaged populations – particularly when most are aware of the obstacles faced by people who are transit dependent? First, the location of low-income and minority communities in the urban core must be considered in relationship to the regional transportation system and the regional employment and activity centers. When evaluating for access by different modes, improvements are best in areas already served by the mass transit and the existing highway system. Trips are shortest and the transit and highway networks are most extensive in these areas. Further, when MTC places a policy of maintaining and sustaining the existing system before expanding the system, it becomes clear that those in the urban core benefit most from this policy. In considering many of the significant transit investments contained in the plan, they are also serving many of the disadvantaged communities in the region. Finally, MTC invests a significantly higher amount of resources into transit than its share of the transportation market partly to ensure there is a safety net for transit dependent people and partly to offer an option for those who can use a car. These reasons help explain the findings from the computer model-based analysis in this report.

The outstanding question, however, concerns the needs of low-income, transit dependent people. From reviewing the data and charts in the equity analysis section, it is clear that owning an automobile offers a much higher level of access to jobs and, therefore, activities throughout the region. The majority of the region's residents travel by car, including low-income and minority residents. There does not appear to be a correlation between "minority" status and auto or transit use. However, there does appear to be a correlation between income and transit use and transit dependency. A central question remaining concerns those who cannot afford an automobile and the impact that has on their ability to reach desired destinations. What about them? MTC recognized early on that other studies and efforts were needed to ensure there was a basic system of transportation services for people who did not have the option of owning a car. The Lifeline Transit Network is an exercise in identifying gaps in the transportation system and finding ways to overcome those gaps. This exercise is a significant undertaking by MTC and represents a first step towards improving the transportation available to low-income, transit dependent groups. Further, new community transportation plans will examine the unique challenges faced by disadvantaged populations in the region.

The other issue concerning transit dependent households is the affordability of the transit system. Stories have been recounted of children having to choose between transit fares and money for lunch. The issue of transit affordability emerged during the regional and county welfare to work plans, and early on, many members of the EJAG asked that MTC evaluate transit affordability. MTC conducted some initial analysis and it became clear that a comprehensive study of transit fares and how they impact access to the transit system was needed. MTC proposed and will complete transit affordability study to explore how fares may function as a barrier to the transit

system and how that barrier can be overcome. Also of interest is a pilot program to test offering discounted transit fares to students from low-income families in certain school districts and to explore the feasibility of adopting a program region-wide.

1.4 Organization of this Report

Chapter 1 provides background on the origins of the environmental justice concerns and why they are being addressed in this RTP.

Chapter 2 explains how MTC addressed the issue of greater public involvement by minority and low-income communities in the development of the RTP.

Chapter 3 discusses the approach to identifying the minority and low-income communities in the Bay Area, which are the communities of concern when it comes to evaluating environmental justice issues.

Chapter 4 discusses specific evaluation factors used to determine if the proposed RTP investments would produce disproportionately high and adverse effects on low income and minority populations.

Chapter 5 discusses funding decisions in the RTP and their implications for social equity, particularly as they relate for funding for public transit.

Chapter 6 discusses the status of other activities, which are or will be undertaken that directly address equity concerns, but which are currently works in progress to be further developed after the RTP adoption.

Chapter 7 discusses other equity concerns raised over the course of a number of meetings with the Environmental Justice Working Group and provides comments on these issues.

Chapter 8 provides summary comments on the results of the analysis, observations, and future directions.

CHAPTER 2: PUBLIC INVOLVEMENT IN THE REGIONAL TRANSPORTATION PLAN

2.1 Public Involvement Overview

A related issue addressed in the *Final Planning Certification Report, July 2000* issued by the Federal Highway Administration was the need for periodic review by MTC of its public involvement procedures, particularly with respect to communities that are traditionally under represented in the planning process. Therefore, one of initial tasks requested of the Environmental Justice Advisory Group was to help MTC and MTC's consultant develop an effective public involvement strategy for low-income and minority communities. The resulting "Public Involvement Process Action Plan" was presented to the EJAG for review and comment. This review addressed the entire scope of MTC public involvement efforts for all MTC programs.

Specific to the 2001 RTP update, EJAG members advised MTC staff on organizations that might be interested in working with MTC and suggested what issues these communities might have about attending meetings to provide input on the 2001 RTP. The first phase of the RTP outreach was centered around a series of workshops, co-sponsored with community or other organizations, to target specific issues of concern in the development of the 2001 RTP. The workshop series started with a kick off meeting at MTC which enabled participants to visit various informational stations organized around the five (now six) RTP goals, ask questions of staff, and vote on specific questions posed under each goal, including the Equity Goal. Nine of the sixteen total outreach workshops for the 2001 RTP were conducted for the purpose of discussing social equity and environmental justice issues. MTC also provided direct financial assistance to community based organizations to help with meeting preparations and recruitment of people to attend. Over 700 people attended the workshops (translation was provided by interpreters, when needed).

The following community based organizations helped with co-hosting RTP workshops:

1. MTC's Elderly and Disabled Advisory Committee
2. League of Women Voters, San Jose
3. One East Palo Alto Neighborhood Initiative
4. Neighborhood House of North Richmond
5. United Neighborhoods Association of Santa Clara County
6. East Bay Asian Local Development Corporation
7. Federation of Latin American Descendants
8. Chinatown Community Development Center/ Chinatown TRIP
9. Bay View Hunters Point Project Area Committee

For those who were not able to attend the workshops, a "virtual workshop" was established on MTC's website with similar information and questions. The answers to these questions were then tabulated electronically. The workshops were not designed to be statistically representative of the Bay Area, but to provide input on a range of views about the RTP goals.

The two key questions asked in these workshops on equity related to a "lifeline" transit system which would serve as a safety net for transit dependent persons: 1) What are the most vital

lifeline transit services?”, and 2) “What would be the best way to fund lifeline transit services?”. Input from these workshops was summarized in the “Public Outreach and Involvement Program-Phase I Summary Report” June, 2001 and presented to the Commission on May 23.

The input received from this outreach concerning the importance of transit for those without a car is succinctly summarized in one of the Messages (major themes) described in this report:

Message 4: “Transit is vital to low-income individuals, but it takes too long.”

For individuals who depend on transit and paratransit to get to work, school and medical services, transit is not a choice; rather it is an essential part of their daily lives. The number one transit issue for those who depend on transit was that trips on transit take too long, sometimes taking 5 to 10 times longer than driving. Participants also spotlighted infrequent service, lack of evening and weekend services, the high cost of transit buses and trains to areas that are not currently served. Specific suggestions included faster bus service by expanding bus-only lanes on streets and freeways, expanding trains and light rail, providing longer hours for transit at night and during the weekend, and subsidizing transit fares for low-income individuals.

2.2 CMA Outreach Process

A second new initiative centered around the public involvement process of the county Congestion Management Agencies (CMAs) in terms of how they consider equity issues in developing lists of project priorities for the RTP. The county Congestion Management Agencies had the task of helping prioritize projects funded with local sales tax measure dollars, state regional improvement program dollars which flow to counties by formula (often used to match local project dollars), and the remaining federal flexible funds available after MTC had determined the regional priority needs for these federal funds (e.g., transit rehabilitation, system management and customer service programs, Transportation for Livable Communities, etc). MTC requested that the equity communities be involved in this process by formal letter and provided lists of organizations that should be contacted. Several Congestion Management Agencies did receive input from the environmental justice community. Typically, however, because this process was new and because many of the CMAs and environmental justice advocates has not had extensive prior working relationships, the process was limited in its overall scope and benefit. Clearly, both the CMA and MTC outreach processes can continue to be improved in the future based on the lessons learned to date.

CHAPTER 3: IDENTIFYING SPECIFIC TARGET COMMUNITIES OF CONCERN

3.1 Demographic and Transportation Profiles in 1998 and 2025

The focus of the RTP social equity analysis is on the transportation needs and potential social impacts on minority and low-income communities. The Bay Area, and California in general, is experiencing a demographic shift to a more pluralistic society. As indicated below, the white (non-minority) population for the region continues to decline, and the minority share continues to increase. Over the long term, the Bay Area's white population is projected to decline from 53% in 2000 to only 41% in 2020. Hispanic and Asian/Pacific Islanders are projected to increase from 19% and 20% respectively, to 24% and 26% by year 2020, representing half the total population in the Bay Area by that time. These figures were developed using data from California State Department of Finance, Demographic Research Unit.

Table 1: San Francisco Bay Area Population Projections by Race/Ethnicity, 1990-2030
Population in Thousands and Share of Total Population

	1990	2000	2010	2020	2030
White, not Hispanic	3,673	3,665	3,588	3,388	3,137
Hispanic, any race	933	1,299	1,651	2,015	2,464
Asian/Pacific Islander	896	1,357	1,814	2,164	2,566
Black/African Amer.	519	587	639	692	726
Amer. Ind.	30	31	34	35	35
Total	6,051	6,939	7,726	8,294	8,928
<hr/>					
% White	60.7%	52.8%	46.4%	40.8%	35.1%
% Hispanic	15.4%	18.7%	21.4%	24.3%	27.6%
% Asian	14.8%	19.6%	23.5%	26.1%	28.7%
% Black	8.6%	8.5%	8.3%	8.3%	8.1%
% Amer. Ind.	0.5%	0.4%	0.4%	0.4%	0.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: MTC compilation of data from the California State Department of Finance, Demographic Research Unit.

3.2 Rising Incomes

The projected distribution of households among four income categories listed below reflects a trend in rising real income. Higher incomes are strongly associated with higher auto ownership. The numbers below reflect households rather than persons, so they do not correspond with the total population figures above.

Table 2: Households by Income Quartile and Share of Total Households for 1998 and 2025

	1998	% of Total Households	2025	% of Total Households
Income Quartile #1				
< \$25,000	467,019	19.5%	338,111	11.6%
Income Quartile #2				
\$25,000 - \$50,000	541,231	22.6%	612,646	21.0%
Income Quartile #3				
\$50,000 - \$75,000	702,513	29.3%	968,143	33.2%
Income Quartile #4				
> \$75,000	684,001	28.6%	997,632	34.2%
Total:	2,394,764	100%	2,916,532	100%

3.3 Auto Ownership

Low-income households have the highest percentage of zero-auto households, about 29% for households in the \$0 to \$25,000 income range, a percentage which remains fairly constant over the RTP period. This compares to the number of total Bay Area households without cars of 9.3% in 1998 and declining to 7.5% in 2025. This increase in automobile ownership can be attributed to rising incomes. Putting these facts together, the percentage of the region's total population which is both low-income and without a vehicle represents only 5.7% of the region's total population in 1998 and only 3.4% of the region's total population in the year 2025.

Figures 1 & 2: Bay Area Households By Auto Ownership for 1998 and 2025

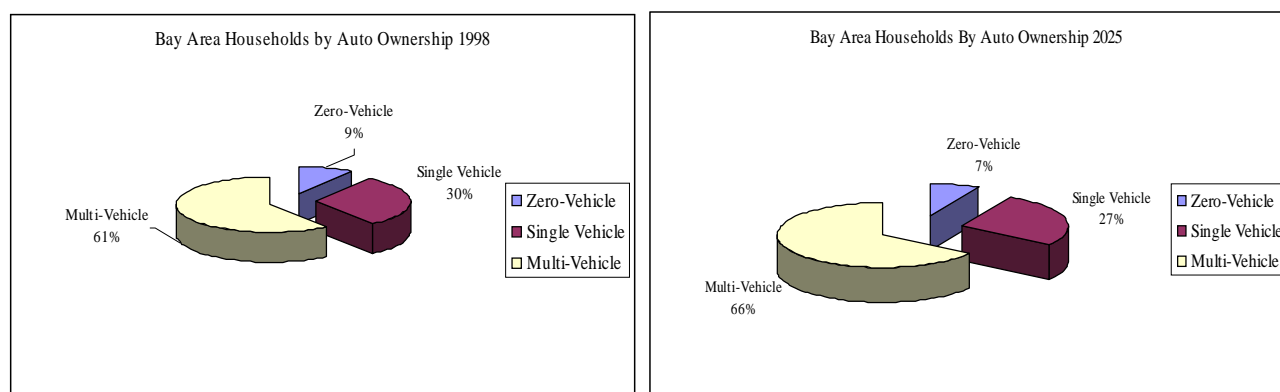


Table 3: Bay Area Households By Income Quartile and Auto Ownership

		Zero-Vehicle HH	Share of Tot. HH	Single Vehicle HH	Share of Tot. HH	Multi- Vehicle HH	Share of Tot. HH	Total Households
Income Quartile #1	1998	136,505	5.7%	230,861	9.6%	99,653	4.2%	467,019
< \$25,000	2025	99,213	3.4%	165,736	5.7%	73,162	2.5%	338,111
Income Quartile #2	1998	47,281	2.0%	214,368	9.0%	279,582	11.7%	541,231
\$25,000 - \$50,000	2025	58,922	2.0%	241,645	8.3%	312,079	10.7%	612,646
Income Quartile #3	1998	26,117	1.1%	170,156	7.1%	506,240	21.1%	702,513
\$50,000 - \$75,000	2025	39,074	1.3%	229,227	7.9%	699,842	24.0%	968,143
Income Quartile #4	1998	13,616	0.6%	112,609	4.7%	557,776	23.3%	684,001
> \$75,000	2025	21,333	0.7%	156,399	5.4%	819,900	28.1%	997,632
Subtotals	1998	223,519	9.3%	727,994	30.4%	1,443,251	60.3%	2,394,764
	2025	218,542	7.5%	793,007	27.2%	1,904,983	65.3%	2,916,532

HH = Household

3.4 Transportation System Use and Low Income and Minority Communities

As the figure below indicates, the majority of Bay Area residents regardless of income or racial background use the automobile for work and personal travel. The difference in transportation mode is most evident between low-income and not-low-income categories, and less so between minority and non-minority trip makers. Household income clearly influences the ability of households to own and operate vehicles, thus low-income households are more dependent on transit for work and non-work trips, using transit for 16% of work trips and 8% of non-work trips. This is the highest level of transit use among the different user groups identified for this analysis. By contrast, the work and non-work trip mode shares for minority residents were closely parallel to those shares for non-minority residents.

Table 4: 1998 Aggregate Trips By Mode and Comparison between Minority and Non Minority and Low-Income and Not-Low Income Communities.

1998 Aggregate Trips

	Minority	Mode Share	Non-Minority	Mode Share	Low-Income	Mode Share	Not Low-Income	Mode Share
<i>Work Trips</i>								
Drive Alone	723,063	68%	2,956,106	74%	522,074	60%	3,157,095	76%
Carpool	169,254	16%	518,140	13%	127,047	15%	560,347	13%
Transit	123,420	12%	347,751	9%	142,110	16%	329,061	8%
Bicycle	8,614	1%	40,293	1%	13,811	2%	35,097	1%
Walk	37,099	3%	110,594	3%	68,939	8%	78,754	2%
TOTAL	1,061,451		3,972,883		873,981		4,160,352	
<i>Non-Work Trips</i>								
Auto	2,691,218	80%	9,927,766	84%	2,324,776	72%	10,294,207	86%
Transit	191,113	6%	466,868	4%	275,774	8%	382,208	3%
Bicycle	53,299	2%	168,215	1%	52,703	2%	168,811	1%
Walk	443,696	13%	1,263,691	11%	596,031	18%	1,111,356	9%
TOTAL	3,379,326		11,826,540		3,249,284		11,956,578	
<i>Total Personal Trips</i>	4,440,777		15,799,423		4,123,265		16,116,929	

Projections for 2025 show similar results, but indicate a slightly greater dependency on transit for both minority and low-income communities.

Table 5: 2025 Aggregate Trips By Mode and Comparison between Minority and Non Minority and Low-Income and Not-Low Income Communities.

	Minority	Mode Share	Non-Minority	Mode Share	Low-Income	Mode Share	Not Low-Income	Mode Share
<i>2025 Aggregate Trips</i>								
<i>Work Trips</i>								
Drive Alone	943,824	66%	4,145,070	73%	705,728	59%	4,383,166	74%
Carpool	235,052	16%	762,940	14%	177,925	15%	820,067	14%
Transit	197,506	14%	549,885	10%	206,111	17%	541,279	9%
Bicycle	11,351	1%	52,879	1%	17,604	1%	46,627	1%
Walk	42,813	3%	136,391	2%	82,015	7%	97,189	2%
TOTAL	1,430,545		5,647,165		1,189,383		5,888,327	
<i>Non-Work Trips</i>								
Auto	3,168,304	79%	12,310,818	81%	2,828,851	71%	12,650,270	83%
Transit	250,031	6%	620,523	4%	356,374	9%	514,179	3%
Bicycle	62,829	2%	216,232	1%	62,918	2%	216,143	1%
Walk	532,657	13%	1,987,764	13%	740,356	19%	1,780,065	12%
TOTAL	4,013,819		15,135,333		3,988,499		15,160,652	
<i>Total Personal Trips</i>	5,444,365		20,782,497		5,177,882		21,048,980	

3.5 Data Sources for the Analysis.

Data sources used in the evaluation included the 1990 and 2000 Census which provide detailed and accurate information at local geographic levels. “Short form” data (questions asked of all Americans) include such items as age, race, and ethnicity, and are currently available from the 2000 Census. “Long form” data (questions asked of 1-in-8 American households) includes such items as ancestry, income, disability, and vehicle availability. “Long form” data will be made available at the “very small area” level beginning in early 2002. Thus, 2000 Census results are available for race and ethnicity, but not for income (Income data from the 2000 Census Long

Form will be available in late 2002). Thus for this social equity analysis, 2000 Census data was used for race/ethnicity and 1990 Census data was used for income.

3.6 Defining Communities of Concern

The first step in the social equity analysis was to identify specific “communities of concern”, in other words, the “target” communities for which the potential social impacts of future transportation investments would be evaluated. Considerable time was spent by the Environmental Justice Working Group on this topic, which dominated the discussion at a number of meetings. In the 1998 RTP Equity Analysis these communities were the same as those defined by the Northern California Council for the Community (NCCC), based primarily on the income levels of the subject communities relative to other communities in the same county (although there was considerable overlap between low income and incidence of high minority populations in these communities as well). For this RTP analysis there was a desire to revisit this definition and look at other options.

The process for defining specific target communities in the Bay Area was a more difficult task than originally assumed. While the intent of the effort was to objectively identify specific geographic areas which would help focus the equity analysis, the discussions often bogged down because participants wanted to know more about how a particular definition would affect the outcomes of the analysis, which of course would not be known until the analysis (i.e. computer travel model runs) was completed.

In terms of the analysis itself, the proposed approach would be similar to that in the 1998 RTP. Once the target communities and criteria (see Chapter 4) were identified, the travel model would be run to compare the results for 2025 with and without the RTP investments and for minority and low income communities compared to the remainder of the Bay Area. In this way, it would be possible to detect any significantly adverse disparate impacts that the RTP might create by virtue of the particular mix of projects being proposed.

As stated above, the Bay Area is already a very diverse region. Over 50% of the region’s population falls into one of the “minority” categories in environmental justice guidance, making “minorities” a majority in this region. Mapping the data revealed that minority populations are widely dispersed throughout the region. Simply selecting target zones where the population exceeded the regional average, resulted in defining 50% of the MTC defined 1099 Travel Analysis Zones as “minority” zones. This did not match the concept of identifying zones of heightened concern to compare with the general population. Evaluating half of the region’s zones against the other half of the region’s zones would result in no differences between the groups or alternatives. There were also similar concerns when attempting to define “low-income” communities. This issue generated considerable discussion among EJAG participants about how to define low-income populations, eventually leading to the definitions below:

Minority Communities

The term “minority” according to federal guidelines refers to: African American, Asian American, Hispanic and Native American. Zones are selected for analysis based on the concentrations of target populations within each zone. After considerable analysis of alternative definitions of target zones, it was concluded that a travel analysis zone with a “minority population of 70% or more, would have a “meaningfully greater” concentration of minority residents and should be included in the analysis.

Low-Income Communities

Low-income is defined as a person whose household income is at or below the US Department of Health and Human Services Poverty Guidelines. For the purposes of this exercise, the definition of low-income to households was established as households at or below 200% of poverty. This level was used to reflect the relatively high cost of living in the Bay Area. Because Census 2000 income data will not be available for a while, the 1990 Census database was used. Zones where 30% of the total population or greater is low-income were included in the Equity Analysis. (When 2000 Census data is available it will be used for future work).

Table 6: Selected Travel Analysis Zones (TAZ) For Analysis

Minority	
Total 2000	6,783,76
Total regional white	3,392,20
Total minority	3,391,55
Total Population within Selected	2,230,50
Total white poluation selected	530,870
Total people of color in selected	1,699,63
% of total Travel Analysis Zone	33.0%
% of white population in selected	24.0%
% people of color in selected	76.0%
* Information on people of color is drawn from the 2000 Census	
Low Income	
Total 1990 Regional	5,880,88
Total poluation in	1,902,08
Total poverty population in selected	969,982
Total not-in-poverty population in	932,099
% of total Travel Analysis Zone	21.1%
% of total regional population in	32.3%
% of total regional poverty population in	55.8%
** Information on Poverty Drawn from 1990 Census	

For both approaches, the zones which are currently identified as “low-income” or “minority” are assumed to remain as a low-income or minority in 2025. This is because it is not possible to forecast both race and income at the zonal planning level used in MTC’s travel analysis models (Typically such demographic forecasts, if conducted at all, are conducted at the larger county level). Maps are attached which depict the selected zones for each category.

The universe of “zones” selected represents 333 zones of the 1099 Travel Analysis Zones used in the MTC Travel Demand Forecast Model. These represent about 42 communities. The communities range from one zone to large concentrations of zones (36 in South/East San Jose). These communities range in size from 2,100 people in central Martinez to 388, 300 in South/East San Jose by the year 2025. Some of the largest communities of concern include Fruitvale/East Oakland, Hayward/Union City, and Daly City. Some zones have high concentrations of low-

income residents while others have low-concentrations of low-income residents but high concentrations of minority residents such as Fremont-Newark and Milpitas.

As mentioned earlier, ABAG forecasts show that low-income households are decreasing by 2025 and that holds true in the 42 target communities. While the number of low-income households in the communities of concern are declining, these communities have a much larger share of households in the low-income category. By 2025, San Francisco's Tenderlion community will have the highest share of low-income residents with over 55.4% of all households in the low-income category. Other communities which have high shares of low-income residents include San Francisco South of Market (49.3%), West and North Oakland (47.5%), West Alameda City (42.7%), Martinez (37.2%) Guerneville-Monte Rio (33.2%) and Concord (32.7%).

While at the regional level, forecasts predict that 7.5% of Bay Area households will not have a vehicle in 2025, in the 42 target communities, it is predicted that 15.2 percent of all households will not have a vehicle compared to 4.5 percent of households in the rest of the region. Over half of the region's zero-vehicle households are projected to reside within the target communities selected for this analysis. Please refer to Appendix B for statistics on all of the zones selected for this analysis.

Chapter 4: The Social Equity Analysis Approach Developed for the 2001 RTP

The intent of this effort was to refine and improve upon the 1998 analysis. Additionally, MTC reviewed the work of other metropolitan planning areas, both with respect to their basic approach as well as the validity of the conclusions.

Mobility and accessibility are the main benefits conferred by the Regional Transportation Plan. The role of the transportation system is to enable people to reach their desired destinations in the most convenient and efficient manner. Mobility refers to the ability to move throughout the region and the time it takes to complete a trip. Accessibility refers to the spatial distribution of potential destinations and the ability to reach desired destinations within a reasonable amount of time. Both of these measures can be applied separately for low-income and for minority communities as defined above. Mobility and accessibility can further be disaggregated by travel mode: drive alone, carpool, bicycling, walking, and transit – recognizing that many mobility issues are related to the quality and level of transit services to various destinations. Impacts on mobility and accessibility are the focus of this portion of the analysis.

The central decision in the RTP update is the allocation of approximately \$7.7 billion out of the total \$82 billion in new transportation revenues over the next 25 years. The Commission's proposed investment plan for these revenues is called the RTP Project Alternative. The equity analysis compares mobility and accessibility impacts both with and without the proposed RTP investments. Any disproportionately high and adverse impact on mobility or accessibility created by the proposed RTP investment program would be of concern from an equity perspective.

Detailed tables with data from the modeling exercises are available in Appendix A of this report.

4.1 Analysis Tools

MTC maintains a sophisticated computer analysis system which enables travel behavior to be forecasted given a set of future demographic and land use projections developed by the Association of Bay Area Governments (ABAG). Key transportation factors which can be estimated are:

- How many trips will be made in the future and for what purpose
- How people will make their trips (drive alone, carpool, transit, bicycle, walk)
- How many trips between travel analysis zones
- Which route or transit service people will use to make their trip
- How long the trip will take

Used in transportation planning studies throughout the Bay Area, MTC's travel demand model provides a versatile tool for analyzing transportation related impacts. Of particular significance for this analysis is the fact that the analysis can be focused by reporting results for specific target zones that represent the minority and low-income communities.

The travel model is largely relevant to the social equity analysis in comparing changes in travel time and cost associated with transportation improvements as they affect low-income and minority communities, compared to not-low-income and non-minority communities. The primary way these factors change is through the addition of new transit services or road capacity.

Other metropolitan areas have employed similar travel model-based approaches using different mixes of possible measurements.

It should also be noted that there are many positive equity features of the RTP that are not the subject of the modeling exercise. In many cases, these are standalone programs specifically targeted at equity concerns such as the Lifeline Transit Network definition, Low Income Flexible Transit, and the Welfare to Work plans. Other programs such as the Transportation For Livable Communities program offer equity benefits as over 50% of the projects to date are located within the disadvantaged communities. More information about these efforts are included in Chapter 6 of this report as well as the RTP itself.

4.2 Overview of Analysis

The accessibility and mobility impacts of the proposed RTP investment plan are assessed through three travel model-based evaluation factors:

1. **Accessibility to Jobs** – The number and percentage of all regional jobs accessible within 15, 30, and 45 minutes of the identified minority and low-income communities compared to the rest of the Bay Area by automobile and by transit.
2. **Travel Time** – Aggregate travel time and average travel time for work and non-work trips by transit and by automobile for the identified minority and low-income communities compared to the rest of the Bay Area.
3. **Transit Travel Time to Major Job Centers** – Travel times by transit from the identified minority and low-income communities to selected job centers.
4. **Test Evaluation Measure:** Accessibility by income quartile for all households

The time thresholds of 15, 30, and 45 minutes were established after several discussions with both the Performance Measures Working Group and the EJAG. For all measures, the fifteen-minute time interval is not included. This is because after model runs were completed, it was found that only a negligible number of jobs were available by public transit and didn't warrant comparison. Public transit trips include walk and wait time which means the 15-minute interval is not useful for this exercise. The main concern expressed by both groups was the desire to see thresholds under and over an average commute time of 23 minutes. In the end, the longer time thresholds show more meaningful differences and are presented in Appendix A of this report.

The analysis of each factor is presented in two principal parts. First, trends over time are examined by comparing the outcomes for 1998¹ and 2025. Second, the impacts of the proposed \$7.7 billion RTP investment plan are considered by comparing the results for the RTP Project Alternative with those for the No Project Alternative. A third step of the analysis includes comparisons between the five different RTP investment alternatives considered as a part of the Environmental Impact Report.

The comparison of the RTP and No Project Alternatives is the primary focus this social equity analysis. The analysis considers both the absolute levels of mobility and accessibility provided by the RTP Alternative and the relative change from the No Project to the RTP.

¹ 1998 is the latest year for which the MTC travel demand model has been validated, or compared and adjusted to match real-world conditions.

Specifically, the analysis considers whether the results suggest that the low-income and minority communities have levels of accessibility and mobility in the RTP that are at least comparable to those for the rest of the Bay Area and whether these communities experience increases (or decreases) that are comparable to those experienced for the rest of the Bay Area.

In addition, the last section of this chapter includes a brief comparison of the measures for three other RTP investment alternatives analyzed in the Draft Environmental Impact Report (DEIR): the System Management, Blueprint 1, and Blueprint 2 Alternatives. The comparisons were made as a test to see how varying levels of transportation investment would affect the equity criteria. The System Management alternative contains somewhat greater funding than the Regional Transportation Plan; the two Blueprint Alternatives contain substantially greater funding scenarios.

Figure 3: 2001 RTP Alternatives

No Project Alternative (Baseline for purposes of the DEIR)

Highway, transit, local roadway, bicycle, and pedestrian projects that are reasonably foreseeable, that will go forward, primarily based on current funding commitments. These projects are identified in the federally required 2001 Transportation Improvement Program (TIP) and include fully funded sales tax projects authorized by voters in Alameda and Santa Clara Counties during the November 2000 election.

Proposed “Project” Alternative (Financially constrained)

The financially constrained RTP proposed for Commission adoption in November 2001. Projects in this alternative are based on MTC’s regional priorities (e.g., filling transit operator shortfalls, pavement shortfalls on the metropolitan transportation system (MTS), and system management programs) and the county congestion management agency (CMA) adopted project lists.

System Management Alternative (Financially constrained)

This alternative includes a set of projects that could address corridor mobility issues that are primarily operational in nature, such as more express bus service, reversible carpool lanes, and a better connected HOV and transit system. It also provides more funding for streets and roads pavement shortfalls. Freeway ramp metering is assumed for the most congested corridors. Congestion pricing is assumed on the Bay Bridges to generate additional revenues, including transit operating revenues, and some highway projects are deferred to provide additional capital funding.

Blueprint 1 Alternative (Not financially constrained)

The 2001 RTP plus Blueprint projects that could be funded if new revenue sources are developed. These are reasonable revenue sources to consider as they represent extensions of existing funding sources, higher levels, or legislative authorization exists to pursue a particular fund source, but has not taken place. Potential sources of new revenue include up to a 10-cent Regional Gas Tax, Bridge Tolls, new and extended sales taxes in various counties, BART bonds, and continuation of higher state transportation funding levels as recently provided in the Governor’s 2000 Transportation Congestion Relief Program.

Blueprint 2 Alternative (Not financially constrained)

This set of projects include a number of projects considered in MTC’s 2000 *Transportation Blueprint for the 21st Century*. Many of these projects are being considered in other ongoing planning studies, including expanded ferry service, a California High Speed Rail system, and other long-term highway and transit improvements. For many of these projects a funding source has not yet been identified. This alternative is in addition to projects in Blueprint 1 and therefore provides the most extensive set of transportation projects that could be funded with the most optimistic assumptions about future revenues.

4.3 Evaluation Factor 1: Accessibility to Jobs

This evaluation factor measures accessibility in the region by automobile and by transit. The measure compares accessibility from low-income and minority communities to other communities in the Bay Area.

Major Findings:

Low-income and minority communities in the core areas of the region have high levels of access due to the presence of large concentrations of jobs and well developed highway and transit network.

Accessibility is highest in the urban core and decreases for communities in suburban and exurban locations.

Accessibility to jobs by transit increases with the RTP, and the highest number of jobs are accessible from low-income and minority communities.

Accessibility to jobs by auto remains relatively constant for low-income and minority communities with the RTP, but decreasing slightly for the rest of the region.

Automobiles offer a higher level of access to jobs than transit for any time interval.

Accessibility is the main benefit derived from transportation improvements in the RTP. It is measured here as the number and share of regional jobs that are accessible within given time intervals from their place of residence. While the number of jobs is typically associated with work opportunities, it is equally representative of other activities. For example, retail jobs are included in total regional jobs and represent, in part, locations such as grocery stores and clothing stores. Likewise, government service centers and schools are also job locations.

Figure 4 compares the number of jobs accessible by automobile and transit from low-income and not-low-income communities as well as from minority and non-minority communities in 1998 and for the 2025 RTP. Auto accessibility is as relevant as transit accessibility because most minority and low-income households (about 70%) own cars and use autos for their transportation needs.

Figure 4 shows that the number of jobs accessible by automobile or transit from minority and low-income communities is consistently higher than the number of jobs accessible from non-minority and non-low-income communities. This holds true for the 1998 and 2025 and is most evident for the 45 minute threshold, though it is true for the 15 and 30 minute thresholds as well.

Comparison of 1998 and 2025

Figure 4 also shows that minority and low-income communities tend to fare at least as well as non-minority and not-low-income communities in terms of changes between 1998 and 2025.

Accessibility to jobs by transit increases across the board between 1998 and 2025, and the growth in access for minority and low-income communities out-paces that for other communities. The number of jobs accessible by automobile from minority and low-income communities is about the same in 1998 and the 2025 RTP for each travel time threshold.

Comparison of RTP and No Project

Similarly, low-income and minority communities tend to fare at least as well as other communities in terms of changes between the No Project (no new RTP investments) and the RTP. In almost every case, the absolute increase in number of new jobs accessible by auto and transit is greater for low-income and minority communities. (Figure 5)

Figure 4: Accessibility to Jobs by Automobile and Transit from Minority and Low-Income Communities Compared to Other Communities

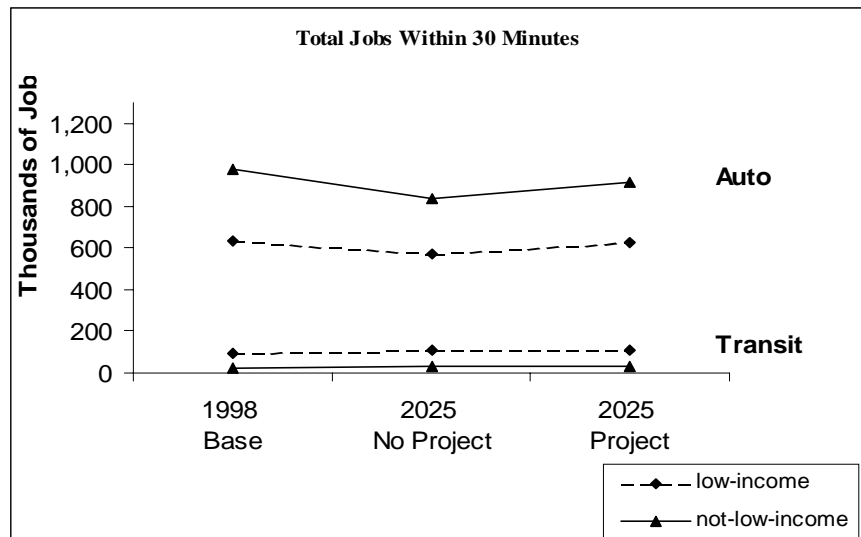
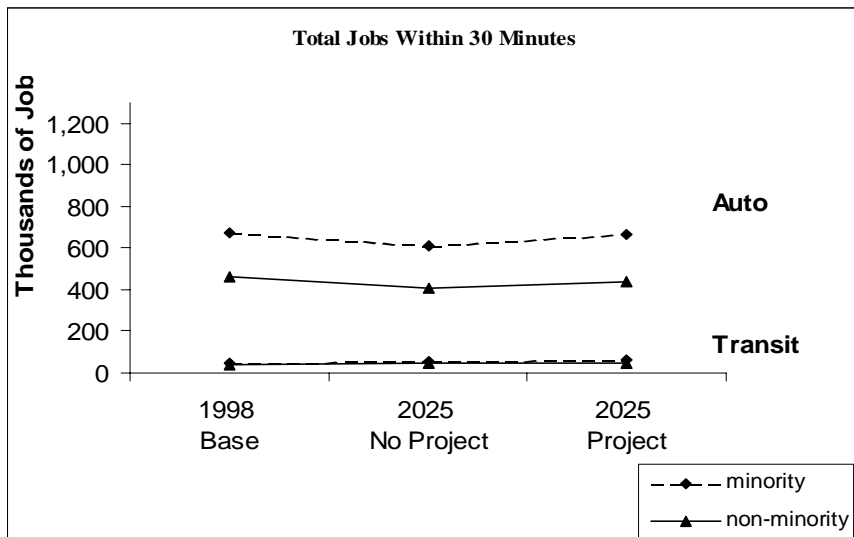
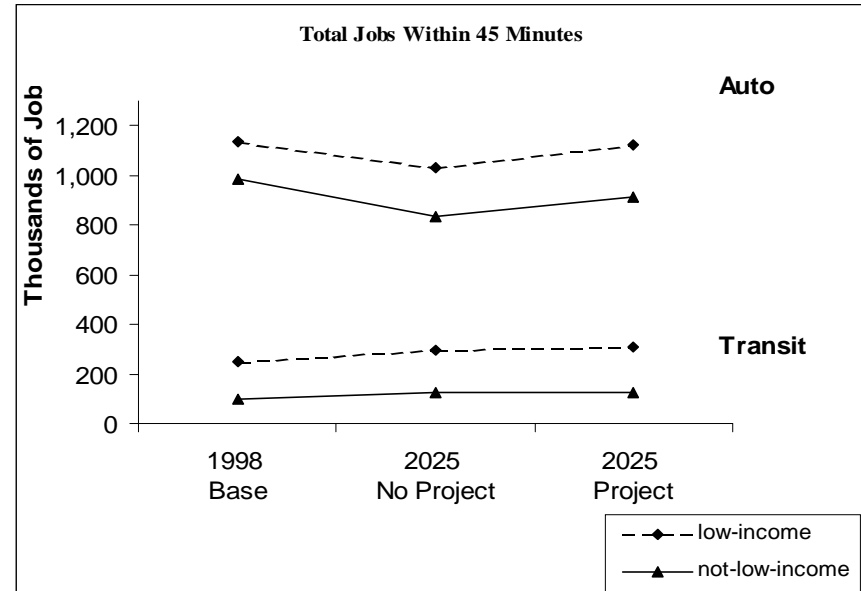
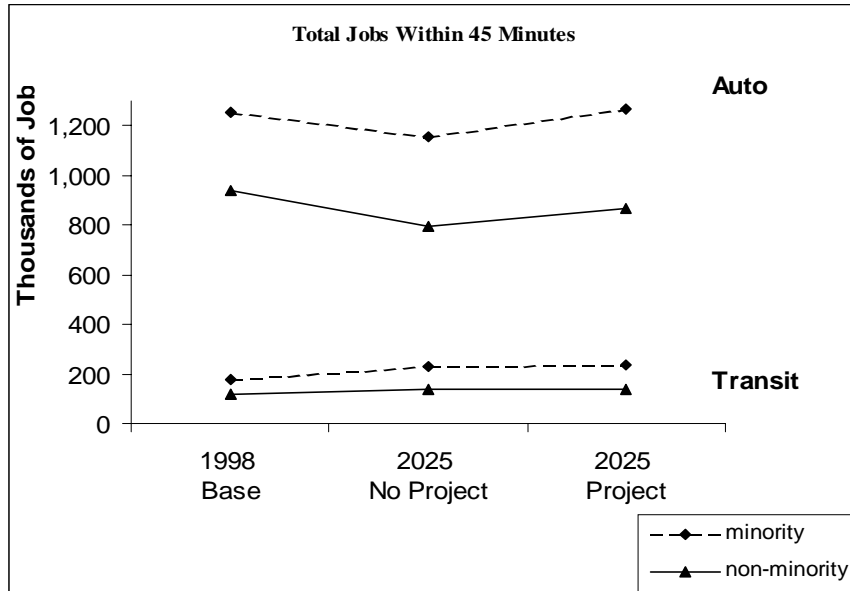
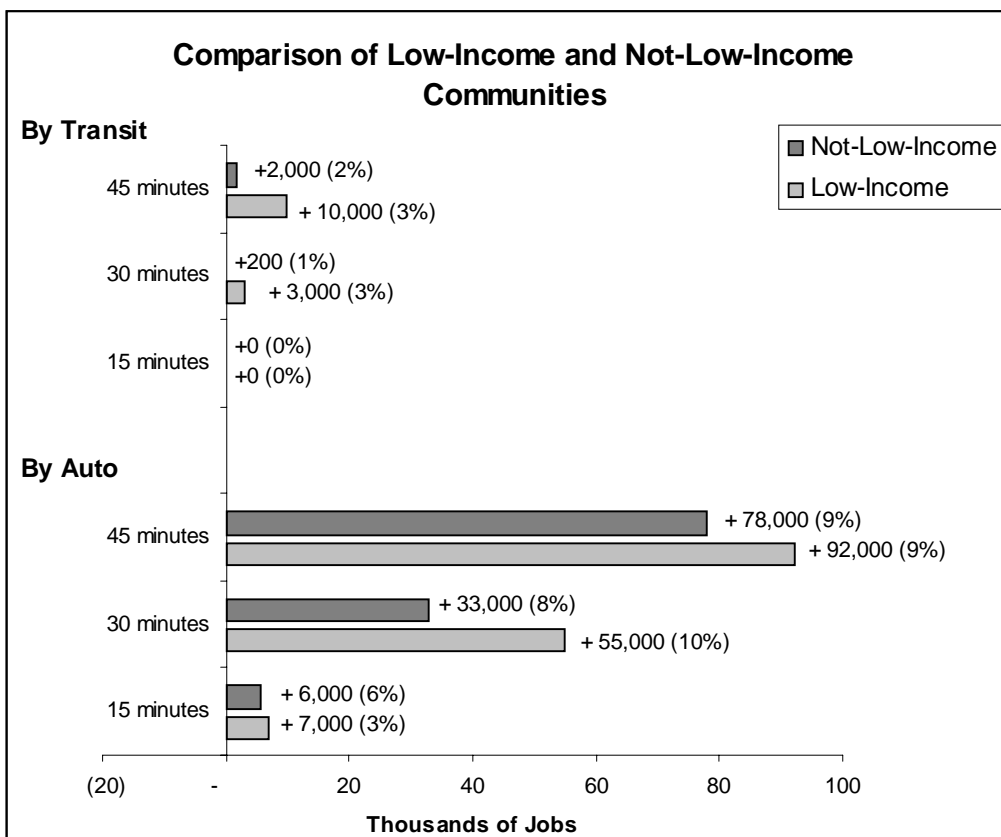
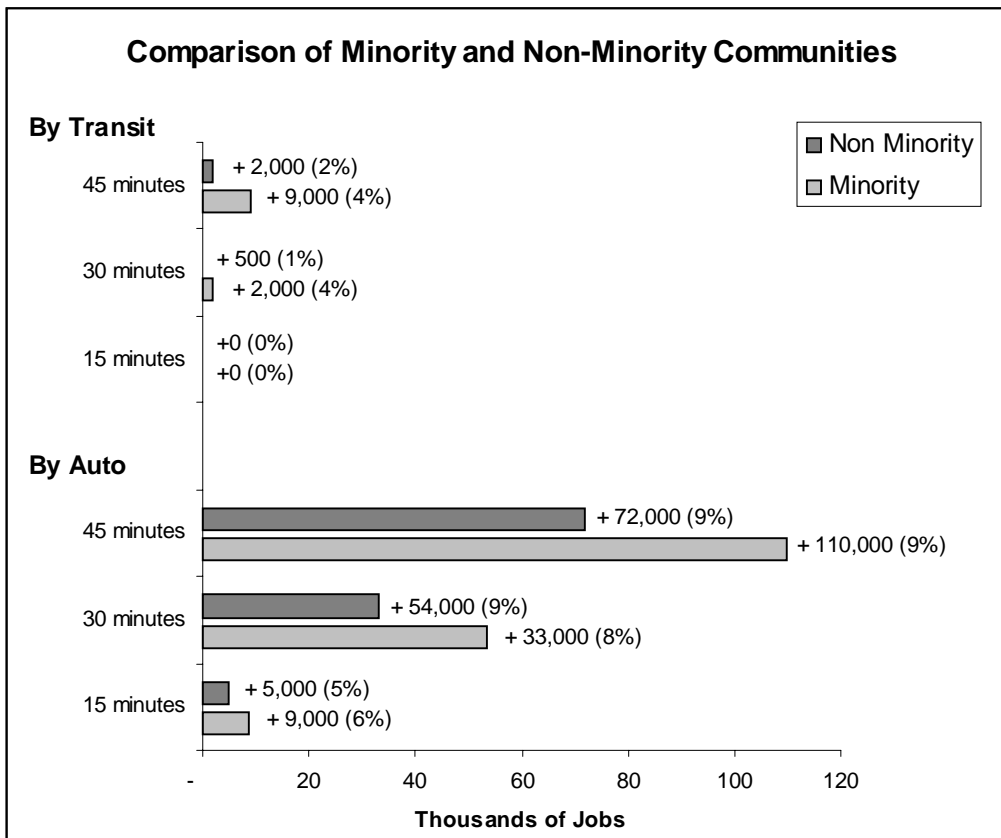


Figure 5: Number of Jobs Accessible by Transit and Auto, Change from the No Project to the Project



4.4 Accessibility to Jobs for Minority and Low-Income Communities For Other RTP Alternatives

The same evaluation measures used in the previous section were applied to all RTP alternatives: System Management, Blueprint I, and Blueprint II.

Major Findings:

Low-income and minority communities fare as well or better under these other RTP scenarios.

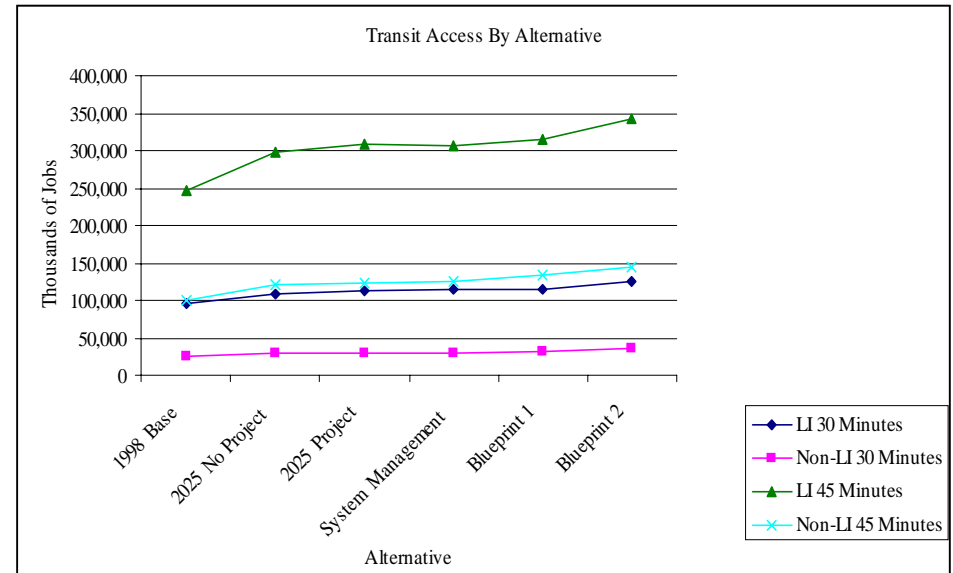
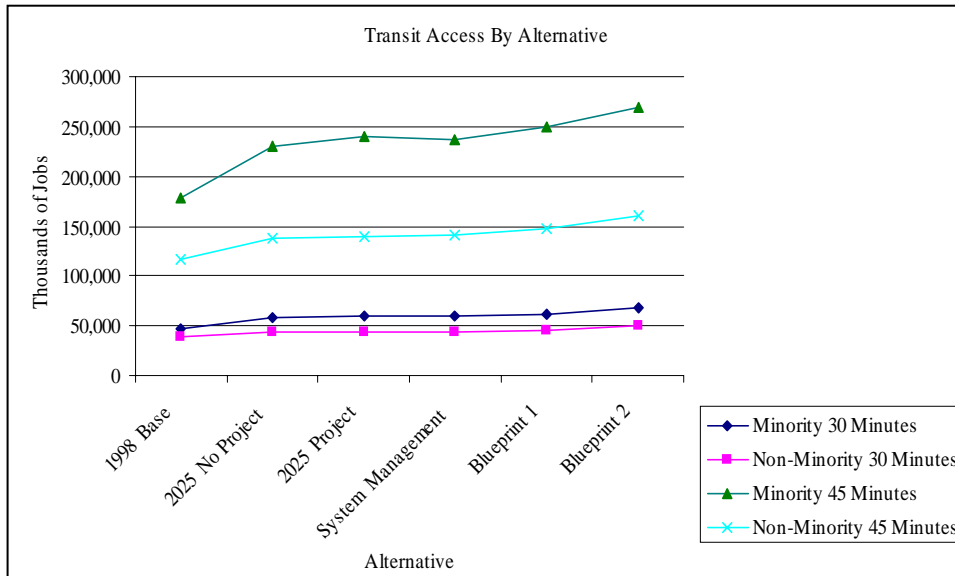
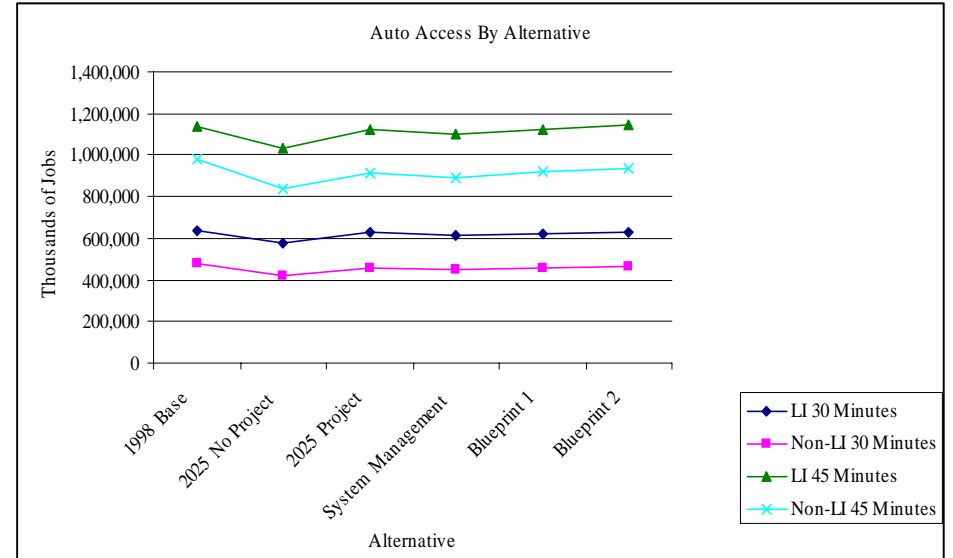
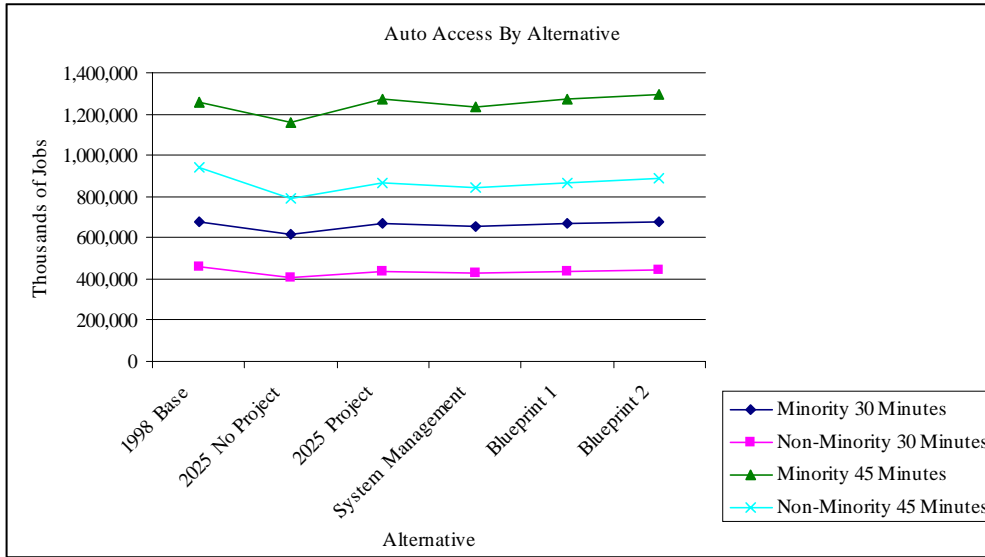
Auto accessibility from minority communities is slightly higher when compared to the other groups.

Transit accessibility increases for all groups and increases equally or better for low-income and minority communities.

Comparison of 1998 to 2025

Low-income and minority communities tend to fare as well or better than other communities under the different RTP alternatives as shown in Figure 6. Auto accessibility remains the same for minority and low-income communities and for other communities as well. Transit accessibility increases as much or more for the Blueprint I and Blueprint II alternatives, which is not surprising given the number and magnitude of transit investments for those two alternatives.

Figure 6: Accessibility to Jobs for Minority and Low-Income Communities Compared to Other Communities, 1998 and 2025 Alternatives



4.5 Evaluation Factor 2: Travel Time

The second equity measure compares the average travel time for work and non-work trips by transit and by automobile for the identified minority and low-income communities compared to the rest of the Bay Area. Aggregate and 90th percentile travel time findings are available in the tables provided in Appendix A.

Major Findings:

Average travel times increase from 1998 to 2025 for minority, non minority, low-income and not-low-income communities.

Average travel times increase for low-income and minority communities at a lower rate than the region as a whole.

Average travel time for non-work trips are slightly higher from minority and low-income areas when compared to non-minority and not-low income areas.

Comparison of 1998 to 2025

Figure 7 shows that the average travel time for work trips is expected to increase from 26 to 31 minutes for minority communities and from 28 to 35 minutes for non-minority communities. The change in travel times for low-income communities and not-low-income communities is almost identical, as shown in Figure 7. There are little differences between the RTP and other alternatives in average travel time for work trips. For non-work trips shown in Figure 8, average travel times are higher for minority and low-income communities. This is due to the fact that in the off peak periods, transit is less available and travel times are higher as wait times for transit are longer, thus, the higher average travel time.

Figure 7: Average Travel Time for Work Trips, For All Groups, 1998 and 2025 Alternatives

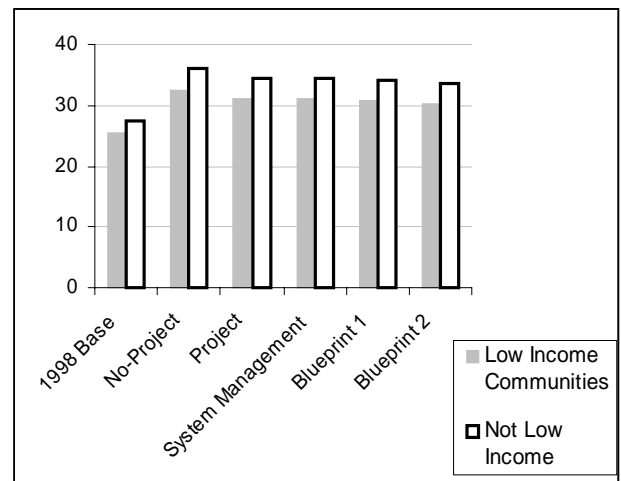
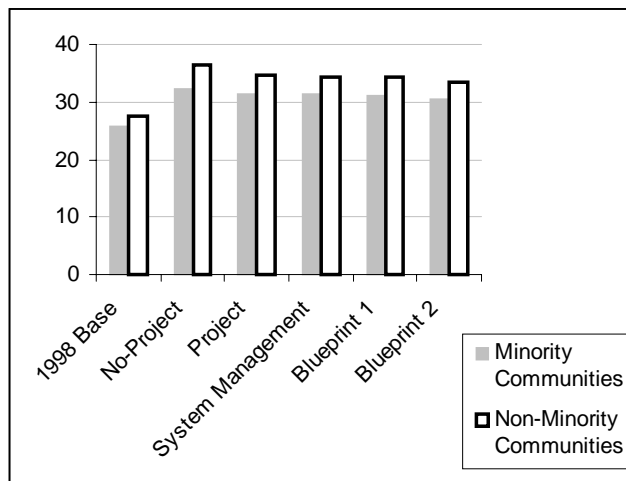
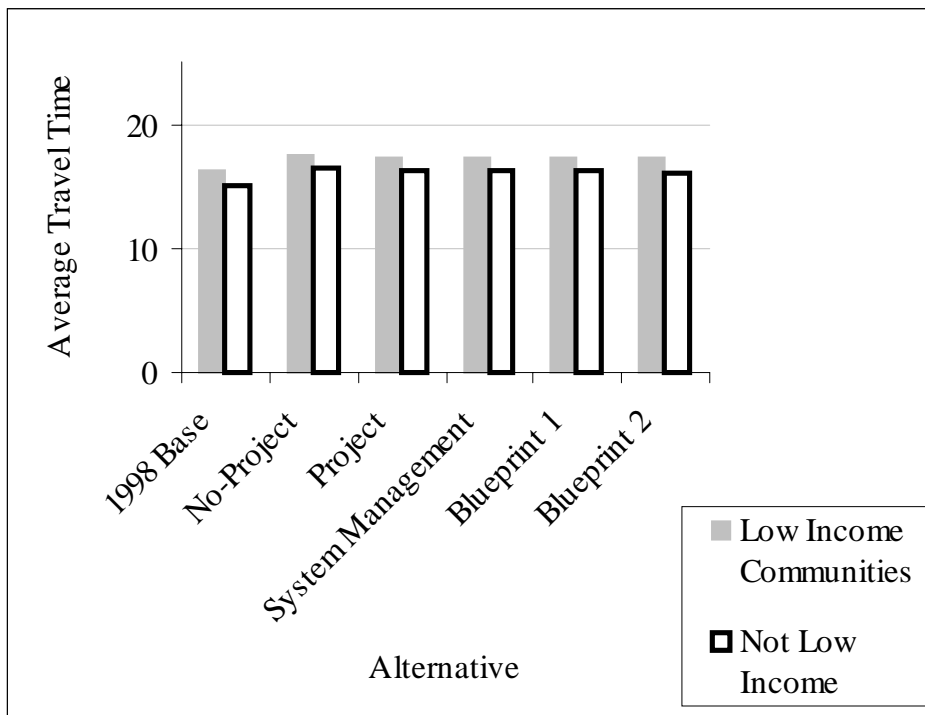
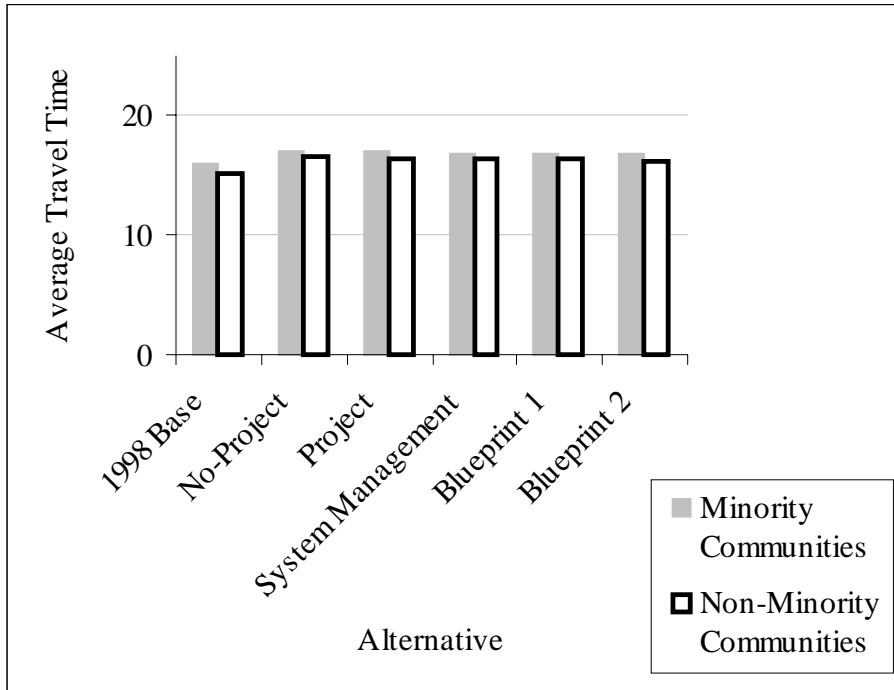


Figure 8: Average Travel Time for Non-Work Trips, for All Groups, 1998 and 2025 Alternatives



4.6 Evaluation Factor 3: Transit Travel Time to Major Job Centers from Low-Income and Minority Communities

This measure was intended to evaluate transit access from the communities of concern to key employment centers in the region.

Major Findings:

Transit travel times decrease in the RTP given the addition of rail extensions and other transit service improvements.

Traditional job centers have small improvements in transit travel time savings as they are already well served by rapid rail and bus services.

Transit travel times to new/emerging job centers improves noticeably due to new transit investments.

Comparison of 1998 to 2025

Transit travel times are expected to decrease from 1998 to the 2025 due to rail extensions and other transit service enhancements in the RTP. This is also generally true of transit travel times from low-income and minority communities to the region's job centers. Figure 9 shows transit travel times from selected low-income and minority communities to selected job centers.

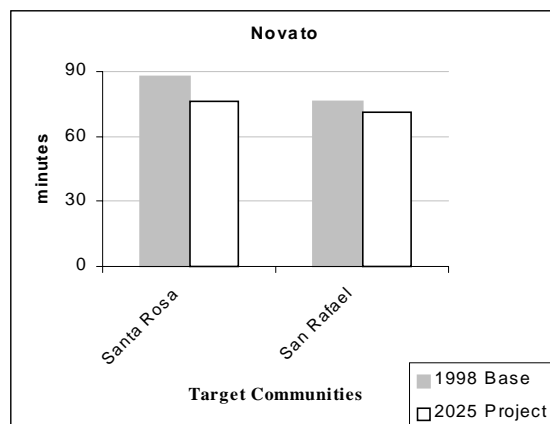
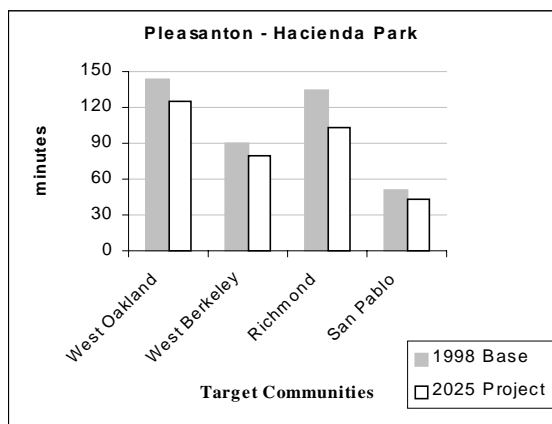
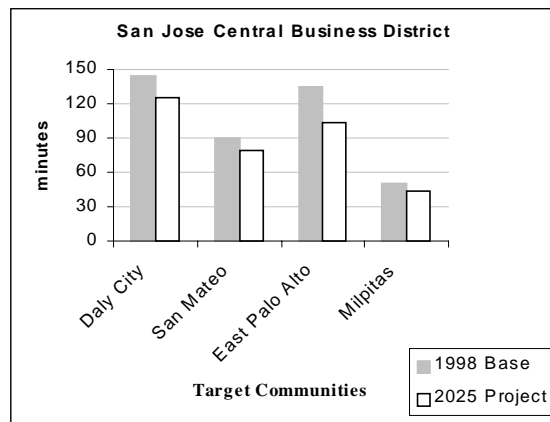
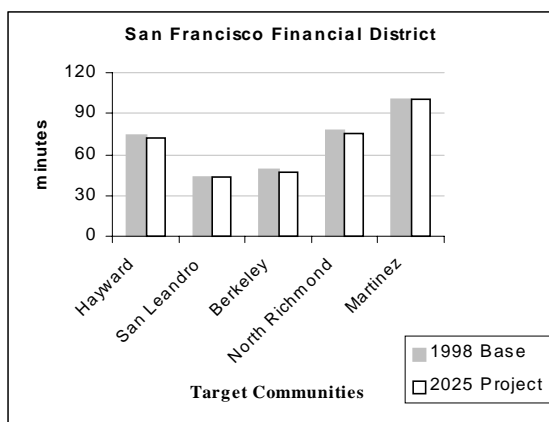
In some cases, such as travel to the San Francisco Financial Center and the Oakland Central Business District, the improvements in transit travel times are small because the existing transit system is already robust. Transit travel times to the other job centers show larger improvements. For example, travel times to San Jose would decrease as a result of Caltrain improvements and the BART extension which is being evaluated as a component of the Regional Transit Expansion Program (RTEP). Transit travel times to Hacienda Business Park in Pleasanton also decrease as a result of transit service improvements.

Appendix A is a detailed table will provides travel time information to all the selected job centers. Origin and destination pairs were selected for this analysis from selected communities to selected business centers. By necessity, low-income and minority neighborhoods were selected based on their proximity to the job centers. For example, transit travel times to downtown San Francisco were measured for selected neighborhoods where residents were likely to use transit to reach this destination rather than for all neighborhoods identified as low-income and/or minority in the entire region. This process was repeated for each regional job center. The list of data is provided in Appendix A and representative charts are provided below.

Comparison of Alternatives in 2025

In most cases, the RTP alternatives are also expected to reduce travel times compared to the No Project alternative. Again, the reductions are due principally to the amount of transit service included in the alternatives. The Blueprint 2 Alternative, which includes the largest number of projects to expand and enhance transit service, produces the greatest reductions in travel time.

Figure 9: Transit Travel Times² from Selected Minority and Low-Income Communities to Selected Job Centers, Comparison of 1998 Base and 2025 RTP



² Transit travel times assume walk access.

4.7 Test Evaluation Factor: Accessibility By Income Quartile

The Environmental Justice Advisory Group also requested that the same accessibility measures be applied to all low-income households, not just those households which happen to be located in a defined target community. For this analysis, the comparison is by income group (or more exactly, income quartile, which divides all households into four income ranges). For a breakdown of households by income category, please refer to Table 7 below. Since the totals here are reported for households rather than residents, the data is not strictly representative of the total population in the region.

Major Findings:

The number of low-income households are projected to decline as incomes are expected to rise over time according to projections provided by the Association of Bay Area Governments.

The low-income quartile has the highest level of access to jobs in 1998.

The low-income quartile continues to have the highest level of access to jobs under all scenarios.

Accessibility increases at the highest rate for the highest income quartile and the lowest rate for the lowest income quartile.

Table 7: Bay Area Households By Income Quartile

	1998	% of Total Households	2025	% of Total Households
Income Quartile #1 < \$25,000	467,019	19.5%	338,111	11.6%
Income Quartile #2 \$25,000 - \$50,000	541,231	22.6%	612,646	21.0%
Income Quartile #3 \$50,000 - \$75,000	702,513	29.3%	968,143	33.2%
Income Quartile #4 > \$75,000	684,001	28.6%	997,632	34.2%
Total:	2,394,764	100%	2,916,532	100%

Table 8 shows accessibility by transit and income quartile. Low income and medium-low income quartiles have the most jobs accessible by transit. Accessibility further increases under the RTP alternative, but gains are lower relative to the higher income quartiles. However, access to the total number of jobs is still substantially greater for the lower income quartiles. It is interesting to note that the low and medium-low quartiles experience greater improvements in access to jobs by auto than higher income quartiles.

Accessibility by jobs and by auto for each of the RTP alternatives are presented on the pages to follow.

Table 8: Total Number of Jobs Available By Transit. Comparison among income quartiles and between the No-Project and RTP

<i>Total Employment and Percent of Total Jobs Within 30 Minutes of Residence by Transit</i>					
Income Quartile	1998	No-Project	RTP	Absolute Change	% Change
Low Income	103,284	128,916	132,359	3,443	2.67%
Med-Low	66,711	88,484	91,529	3,045	3.44%
Med-High	49,231	68,003	71,510	3,507	5.16%
High	45,355	62,984	66,741	3,757	5.97%
Total	62,616	77,650	81,138	3,488	4.49%

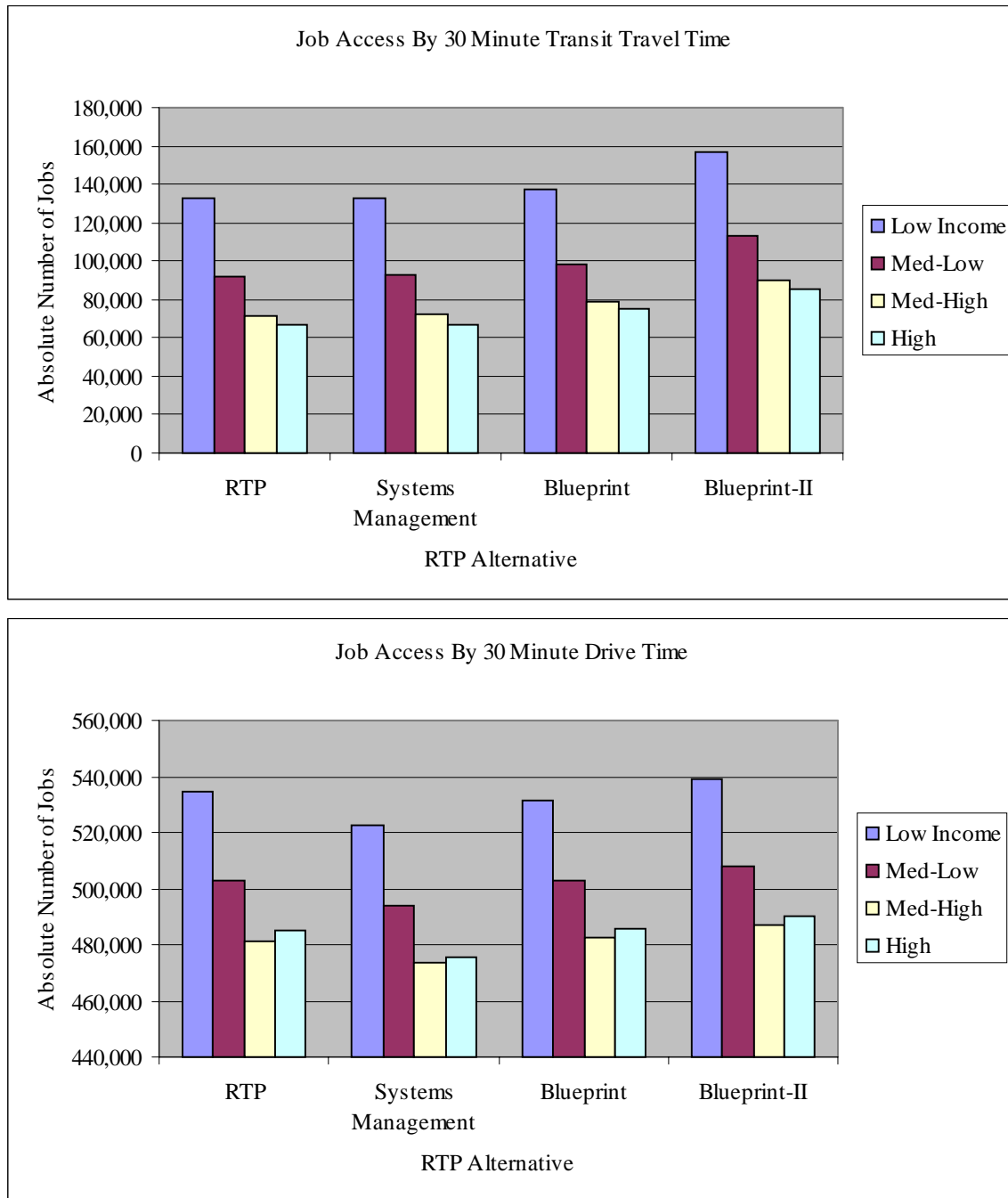
<i>Total Employment Within 45 Minutes of Residence by Transit</i>					
Income Quartile	1998	No-Project	RTP	Absolute Change	% Change
Low Income	299,527	381,024	396,457	15,433	4.05%
Med-Low	236,441	306,318	323,108	16,790	5.48%
Med-High	195,802	260,521	279,900	19,379	7.44%
High	181,439	241,317	261,062	19,744	8.18%
Total	221,112	277,542	296,045	18,503	6.67%

Table 9: Total Number of Jobs Available By Automobile. Comparison among income quartiles and between the No-Project and RTP

<i>Total Employment Within 30 Minutes of Residence by Driving</i>					
Income Quartile	1998	No-Project	RTP	Absolute Change	% Change
Low Income	556,458	487,787	534,494	46,707	9.58%
Med-Low	519,399	462,494	502,857	40,363	8.73%
Med-High	498,071	445,276	481,484	36,208	8.13%
High	508,933	450,930	485,070	34,140	7.57%
Total	517,380	455,755	493,345	37,590	8.25%

<i>Total Employment Within 45 Minutes of Residence by Driving</i>					
Income Quartile	1998	No-Project	RTP	Absolute Change	% Change
Low Income	1,056,670	900,358	991,310	90,953	10.10%
Med-Low	1,010,660	870,085	955,015	84,930	9.76%
Med-High	997,916	856,456	936,837	80,381	9.39%
High	1,039,272	893,150	968,057	74,907	8.39%
Total	1,024,067	876,960	957,650	80,690	9.20%

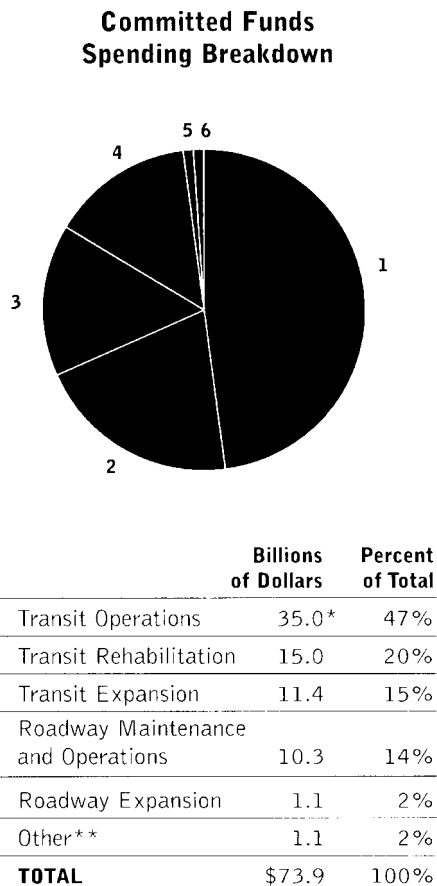
Figure 10: Job Access By Income Quartile for All RTP Alternatives



CHAPTER 5: RTP FINANCIAL ASSUMPTIONS

The EJAG participants were interested in how MTC funding decisions affect transportation equity, particularly relating to future transit services that are the heart of the mobility issues for those without a car. The RTP equity analysis therefore includes a financial component which is discussed below. The principal focus of this analysis is on the sources and uses of funds over which MTC has some discretion.

Figure 11: Committed Funds in the RTP and Allocations For Transit and Roadway Projects



Committed versus Non Committed Funding. Over 90% of the \$82 billion in transportation revenues flowing to the Bay Area between now and 2025 are in a category termed committed funding: that is funding that is already directed by statute or voter action to particular types of projects and programs.

* 36% fare revenues/64% subsidy

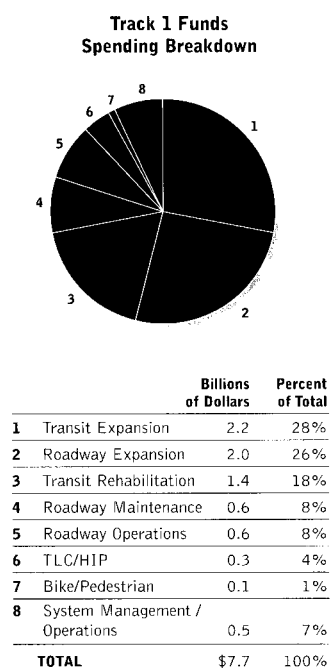
** Other includes bike and pedestrian improvements, TLC/HIP, system management, etc.

Typical characteristics of committed projects are:

- Fund sources not under MTC control that are directed to certain uses by federal or state statute
- Projects funded through county voter approved transportation expenditure plans (e.g. sales taxes which have been identified for specific transportation projects in a county)
- Projects funded by local sources other than sales taxes (e.g. developer fees, transportation assessments, traffic mitigation impact fees, etc.)
- Projects in MTC's adopted 3-year Transportation Improvement Program (a funding program required by federal law which spells out the projects that will be moving ahead in the next three years and which are fully funded for the particular phase of the project identified in the TIP—design, right of acquisition, construction, etc.) These projects have typically been the subject of corridor or major investment studies, have been developed through an extended public involvement process, have engaged in or have completed environmental review, and have initiated design or right of way acquisition. In other words, projects that have advanced well through the project development process.

It has been MTC's policy to honor these commitments, particularly where projects have been approved by voters in local ballot measures, to ensure the orderly delivery of transportation improvements in the Bay Area.

Figure 12: Track 1 Funds Spending Breakdown



5.1 Maintenance of existing roads and transit systems continues to be the major RTP priority

In addition to the committed funding discussed above, the RTP identifies \$7.7 billion in new federal and state transportation funds, known as Track 1, that will accrue to the Bay Area over the next 25 years. The review of the draft 2001 RTP largely revolves around how to spend these additional funds, given regional policies and priorities. Like previous plans, a large portion of the \$7.7 billion has been directed to funding basic system maintenance needs, such as repairing worn out roads and replacing transit vehicles and support facilities once they exceed their useful life. Figure 12 below shows graphically how the funds are broken down by mode and whether

funds are used for maintenance or expansion purposes. Indeed, by Commission policy, the proposed 2001 RTP funds 100% all of the projected transit operator shortfalls calculated for the 25 year planning horizon. The draft 2001 RTP also funds all of the pavement maintenance for high priority roads in the region (designated as the Metropolitan Transportation System, or “MTS”), and the individual counties have further opted to fund about 30% of the pavement shortfalls for non-MTS local streets and roads. Given the high concentration of transit rehabilitation needs for the urban bus systems as well as the concentration of older pavement in the urban core, it is clear that the RTP policies should provide substantial benefit to the areas where the bulk of the minority and low income households are located. Looking at all the funds in the RTP (Committed plus Track 1 funds), 80% of the region’s transportation resources will be directed to maintaining and sustaining the existing system.

5.2 Funding for Transit in the RTP

As mentioned above, funding for transit has been a chief concern among advocates within the environmental justice community. Specific issues concern the need for new transit services that fill existing gaps (such as more weekend and late night service) and better connections to daily needs such as shopping, medical services, schools, government centers, churches, etc.. Development of major new transit services have significant financial implications for transit operators with limited operating subsidies. The provision of new services is not easily addressed in the RTP (due to the financial constraint requirements of federal law) since new service in general requires new, as yet unidentified, transportation revenues to subsidize transit operations. New service could be made possible by reducing service on the least productive routes or by increasing fares, but neither of these options have gained much support in discussions with environmental justice advocates. Of the nine Bay Area counties, only two have recently augmented future transportation operating budgets by renewing existing county sales tax measures—Alameda and Santa Clara counties—both in November 2000.

Support in the RTP for transit can best be portrayed by a “build up” of the financial assumptions which underlie the RTP.

- Committed funds in the RTP are \$73.9 billion, of which 82% of the total funds are for transit.
- Committed funds in the RTP (exclusive of transit fares) are \$61 billion, of which 79% are dedicated to transit.
- Committed funds over which MTC has control are \$12.7 billion, of which 73% is committed to transit.
- Taken as a whole, there are \$81.6 billion in transportation funds in the RTP, of which 80% are dedicated to transit.
- Even within the discretionary Track 1 program primarily funded through flexible highway dollars, 46% of the resources are dedicated to public transit.

Thus, the transit funding levels in the RTP show a commitment that far exceeds transit’s share of the Bay Area travel market, which averages about 6.5% of all trips on an average weekday. The 2001 RTP investment strategy also includes “off the top” funding for several key regional programs designed to make transit more attractive and easier to use, such as the universal fare card and transit information services (TransLink® and TravInfo®, respectively, which enhance transit use). Not counted as part of the transit contribution are regional programs with indirect transit benefits, such as tripling the size of the community based Transportation for Livable

Communities program and Housing Incentive Program to provide incentives to create more housing near transit.

5.3 Funding by Transit Operator

Creating a picture of how each transit system will be financed over the next 25 years is a complex task. The assumptions reflect known revenue sources, fund source eligibility restrictions, and current regional policies for funding transit capital and operating costs. The major funding sources can be divided into three general categories: local, statutory, and funds over which MTC has some discretion. Projected capital and operating funds are shown for each of the major transit operators in Figures 13 and 14.

5.4 Regional and County Expenditures

RTP funding recommendations for the \$7.7 billion in new funding can be further categorized according to the transportation agencies most directly associated with decisions on the use of different types of funds. The three major divisions are: MTC, for regional priorities; the county Congestion Management Agencies, largely for state funds which are directed to counties by formula; and Caltrans, MTC, county sales tax authorities, and the county Congestion Management agencies for state funds which are set aside for inter regional and intermodal projects (see Figures 12 to 14).

Regional/MTC funding priorities are heavily weighted to transit capital replacement, local street pavement maintenance, regional system management and customer service programs and Transportation for Livable Communities and the Housing Incentive Programs. Congestion Management Agency priorities vary by county, depending on local needs. As explained above, the Congestion Management Agencies developed their input to the RTP through a separate public process, but one in which MTC provided clear guidance about improving and expanding public outreach activities.

5.5 Expenditures by Fund Source

Finally, the RTP funding can be summarized by the uses of transportation funds by type of fund source comprising the \$7.7 billion of new RTP funding as shown in Figure 15. There are three principal categories of funding and three secondary categories(which are primarily for transit) that make up the \$7.7 billion :

- *Federal (STP/CMAQ), State Regional (called Regional Improvement Program funds which co-mingle state and federal highway dollars), and State Interregional (called Interregional Improvement Program funds, which also co-mingle federal and state highway dollars).* The federal funds are the most flexible in terms of potential uses and the funds over which MTC has the largest discretion. These funds are the primary sources of dollars for the transit capital shortfalls, system management, and TLC programs. After accounting for these expenditures, counties use remaining funds from these sources for road repairs, certain transit projects, and non motorized transportation, such as bike facilities.
- *The State Regional Improvement Program funds* are directed to counties by formula with each county being assured a minimum amount based on population and lane miles. MTC and the counties collaborate on regional projects which could be funded with these funds. For this

RTP, counties have assigned some of these funds to local road repairs, and they are the main source for highway and transit system expansion.

- The State Interregional Improvement funds are largely directed by Caltrans and the State California Transportation Commission. As the name of the fund implies, there is a strong emphasis on funding transportation improvements that connect regions in the state, as these connections are viewed as a major statewide priority. Also, as a result of recent policy changes at the state level, the funds are increasingly being made available for intermodal projects, such as freight movement and projects that provide intermodal access to airports and seaports. These funds are also a potential source for a portion of the Regional Transit Expansion Program (RTEP), particularly for transit access to airports.
- *Federal New Starts Funds* are discretionary funds administered by the Federal Transit Administration and available for major bus and rail projects. Once MTC completes the review of candidate projects for the Regional Transit Expansion Program, which is being developed concurrently with the RTP, they will be assigned to specific transit projects that can then be considered fully funded. Certain other FTA funds (Bus and Bus Replacement) and Bridge toll funds are also available for transit improvements.

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Chapter 6: New Equity Initiatives at MTC

As mentioned in the overview, not all the environmental justice issues raised in the EJAG discussions could be addressed in the RTP equity analysis, because some of the means for addressing these concerns lie outside the process for updating the RTP and others are best addressed if additional agencies and community organizations are at the table. Highlighted below are the major initiatives that have either directly or indirectly resulted from the recent environmental justice discussions.

6.1 Definition of a Lifeline Transit System

Many of the equity issues raised to date center around the inability of people in low-income and minority communities to get to specific activities which are essential for daily life if they do not own a car. The Lifeline Transit System is intended to work in tandem with another major initiative in the RTP, development of a new Regional Transit Expansion Program, to ensure that all population groups benefit from an improved and expanded transit system for their work and non work trip needs. The Lifeline Transit System concept grew out of the county and regional Welfare to Work planning exercises led by MTC over the past three years. One of the recommendations from that plan was a Lifeline Transit System. For many people who depend on transit, their mobility needs are hampered by spatial and temporal gaps in the existing transit system. Both EJAG and the Minority Citizen's Advisory Committee (MCAC) members expressed strong interest in defining a Lifeline Transit System that would identify gaps and develop costs for providing desired transit service improvements. Spatial gaps may exist where there is no service to concentrations of likely destinations for low income residents. Temporal service gaps may exist where service is in place, but not offered at certain times of day, or where service is not coordinated between two or more transit operators creating lengthy waits. This network can also be described as a "safety net" to ensure that basic transportation needs are met.

To define this system, MTC began by preparing maps, using a Geographic Information System (GIS), of existing transit routes in relation to locations of low-income residents and neighborhoods to the following most frequently mentioned or desired destinations:

- Grocery Stores
- Child care
- Educational facilities (High school, two and four year colleges)
- Hospitals and health care facilities
- One-stop government service centers
- Job locations with 24 hour activity

Since implementation of recommended service improvements must be carried forward by individual transit operators, the maps are being reviewed with the transit operators and confirmed with communities throughout the Bay Area. Eight outreach meetings are being scheduled now and will conclude by the end of the RTP process. Implementation plans will also need to identify sources of operating funding for new lifeline routes. At present the most likely sources appear to be new funding, and the most promising new funding source would be the continuation of a temporary transfer of sales tax on gasoline into the State Public Transportation Account (instead

of the General Fund). California voters may have a chance to approve such a permanent change in 2002.

6.2 Community Transportation Plans

Community Transportation Plans are a pilot initiative being tested by MTC. Modeled after the Transportation For Livable Communities program, the Community Transportation Plans will identify transportation needs within disadvantaged communities and identify opportunities to address those needs. These plans will be collaborative efforts supported by MTC but will require the participation of community based organizations, affected transit operators, Congestion Management Agencies and other organizations where it is appropriate. A Community Transportation Plan working group is currently developing selection criteria and a process for implementing this program.

There is also a new opportunity to partner with the California Department of Transportation as they are launching an expanded Community Transportation Planning Grant program. Grants are available to allow for the following activities: Community Based Transportation Planning, Environmental Justice, Transit Technical Planning Assistance, Statewide Planning Studies, Transit Professionals Development, and Partnership Planning. MTC has already begun conversations with several community based organizations to begin community transportation plans and will explore opportunities to work with Caltrans on these projects.

6.3 Transit Affordability Study

The subject of affordability has been a key theme of the Regional Welfare to Work Plan, adopted by the Commission on July 25, 2001, and has also been of interest to the Environmental Justice Advisory Group (EJAG). The Welfare to Work Plan recommends that MTC conduct a joint effort with the region's transportation and social services agencies and organizations and community groups that are dealing with the affordability of services for low-income persons. MTC expects to initiate this study in the Fall of 2001.

6.4 Subsidized Transit Fares For Low-Income School Children

MTC will be developing a pilot program offering a subsidized transit pass for students from low-income families in selected school districts in the Bay Area. This is a pilot program which will be tested in the coming year as a part of the transit affordability study. The parameters of the program are still being established.

6.5 Low-Income Flexible Transit (LIFT)

The LIFT programs offers operating support for fixed route transit and non-traditional transportation services for low-income residents. The LIFT program continues to be supported with \$1 million a year in STA funds which are matched by project sponsors, and MTC will continue to advocate for Job Access and Reverse Commute funds at the federal level for this type of service.

6.6 Transportation For Livable Communities

MTC continues to offer ongoing support for the Transportation For Livable Communities program. The TLC program offers planning, capital and housing incentive funds to communities to help with development and redevelopment activities. In the Housing Incentive Program, additional funds are available for projects with affordable housing. Historically, 50% of all TLC

projects fall within the “Disadvantaged Communities” identified. MTC is proposing to triple the size of the TLC program in this RTP.

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CHAPTER 7: OTHER ISSUES

7.1 Equity issues associated with development of the RTEP

A concurrent activity with this RTP update is to develop the next set of priority projects for transit expansion in the Bay Area, as a successor to the earlier rail agreement that delivered extensions of BART, VTA light rail, and Muni Metro upgrades. While this program would include both rail and express bus components, representatives of the environmental justice community expressed strong concerns that future rail expansions may draw funding from essential bus services used by low income and minority communities. As a result of these concerns, MTC acted to make one of its evaluation criteria relating to operating support for proposed new service more explicit. Thus sponsors of potential future rail projects who also provide bus service will need to demonstrate that the rail project will not jeopardize operating funds to support bus service to the communities of concern having the greatest number of transit dependent riders.

7.2 General environmental concerns

Concerns were raised in the discussions of environmental justice that the target communities experience a disproportionate burden from the transportation system due to adverse auto and truck traffic, safety, noise, air quality and other related impacts. There currently is no Bay Area database of information to draw from that would allow an informed analysis of this topic. Also, since all communities experience similar types of impacts, it would be necessary to develop criteria that would help determine when a community is subject to a disproportionately adverse impact. These types of concerns are more typically evaluated when there are potential impacts of new transportation projects on a community rather than at the regional plan level. A national example of how environmental justice issues can be addressed in the environmental process for a specific project can be found in Caltrans' efforts to identify a new alignment for an earthquake damaged Cypress portion of I-880. Many issues surfaced in this analysis, including the issue of the freeway bisecting the West Oakland, toxic wastes, truck traffic to the Port of Oakland, and health concerns. Caltrans actively worked with the community and developed a new alignment and mitigation program that met many of the community concerns.

At the regional level, MTC prepares a draft Environmental Impact Report for the proposed transportation improvements in the RTP as a whole. Such a draft has been released for public review in connection with the proposed 2001 RTP. The draft EIR attempts to identify projects in or near the previously identified target communities and which could potentially create disruptive impacts on these communities, if constructed. MTC also invited EJAG members to comment on specific projects in the RTP which they believed could have environmental justice issues. A map showing the location of major projects in the 2001 RTP and geographic relationship to these communities follows. Project sponsors preparing future environmental documents should examine whether there are potential environmental issues that could arise and conduct the necessary evaluation and mitigation when it is necessary.

7.3 Project level applications for funding

In response to requests from the EJAG members, MTC recently modified the information requested when project sponsors apply for funding to require that they indicate whether environmental justice issues have been considered in the project development process.

7.4 Improving data and tools for further analysis

Several participants in the EJAG process expressed dissatisfaction with using a travel modeling approach for the equity analysis for the RTP, arguing in part that such an approach was too removed from real world equity issues that they perceived as important. Accessibility measures for access to the types of discrete local destinations being reviewed in the Lifeline Transit System, for instance, cannot be ascertained through a large scale regional travel demand forecast model given the size of the modeling analysis zones. On the other hand, from the MTC perspective there is valuable information that can be developed with the model that helps answer many of the key questions about how well minority and low income people are served by the broader transportation system that should not be dismissed out of hand. Thus any comprehensive equity analysis must avail itself of a number of different approaches, since there is no “one size fits all” evaluation strategy.

The discussion with EJAG also uncovered the fact that there is some key missing data that is crucial to any equity discussion around transit, such as the number of minority and low income riders on each transit system. Thus MTC will need to work with FTA and the transit operators to see how best to acquire this information in the future. FTA is currently working to build demographic profiles of transit operators in the region. When that information is available, it can easily be linked to the expenditure tables which are provided in this report.

Also, the main database for finding out about disadvantaged households in the Census, and new Census data will not be available for some time. In the meantime, more current data can be used from the Calworks database, which is used in Welfare to Work planning, but this covers only a relatively small number of people considering the size of the Bay Area, and the number of people in the MTC target communities.

CHAPTER 8. SUMMARY

At first glance, the findings in the equity analysis may surprise many. How is it that accessibility is better for disadvantaged populations – particularly when most are aware of the obstacles faced by people who are transit dependent? First, the location of many low-income and minority communities in the urban core must be considered in relationship to the regional transportation system and the regional employment and activity centers. When evaluating for access by different modes, improvements are greatest in areas already served by the mass transit and the existing highway system. Trips are shortest and the transit and highway networks are most extensive in these areas. Further, when MTC places a policy of maintaining and sustaining the existing system before expanding the system, it becomes clear that those in the urban core benefit most from this policy. In considering many of the significant transit investments contained in the plan, they are also serving many of the disadvantaged communities in the region. Finally, MTC invests a significantly higher amount of resources into transit than its share of the transportation market, partly to ensure there is a safety net for transit dependent people and partly to offer an option for those who use a car. These reasons help explain the findings from the model analysis in this report.

One outstanding question, however, concerns the needs of low-income, transit dependent people. From reviewing the data and charts, it is clear that owning an automobile offers a much higher level of access to jobs and, therefore, activities throughout the region. The vast majority of the region's residents travel by car, including low-income and minority residents. There does not appear to be a correlation between "minority" status and auto or transit use. However, there does appear to be a correlation between income and transit dependency. For those not able to afford a car, what about them? MTC recognized early on that other studies and efforts were needed to ensure there was a basic system of transportation services for people who did not have the option of owning a car. The Lifeline Transit System is an exercise in identifying gaps in the transportation system and finding ways to overcome those gaps. This exercise is a significant undertaking by MTC and represents a first step towards improving the transportation available to low-income, transit dependent groups. Further, community transportation plans will examine the unique challenges faced by specific disadvantaged populations in the region.

Another question concerning transit dependent households is the affordability of the transit system. Early on, many members of the EJAG asked that MTC evaluate transit affordability. MTC conducted some initial analysis and it became clear that a comprehensive study of transit fares and how they impact access to the transit system was needed. MTC will soon commence a transit affordability study to explore how fares may function as a barrier to the transit system and how that barrier can be overcome. Also of interest is a pilot program to test offering students from low-income families transit fares in selected school districts to improve access to education.

The RTP equity analysis does not answer all the questions outlined above. It is hoped that the lifeline and affordability studies and pilot programs will help address those concerns. While only representing a fraction of the region's population, these low-income, transit-dependent individuals have the greatest need for low-cost and convenient transportation services.

The work accomplished to date, however, has been substantial even in the face of the limited amount of time. The new equity initiatives in particular strike at the heart of some of the key equity concerns raised during the discussions. As even the members of the EJAG will

acknowledge, the state of art in terms of analyzing equity issues in a regional long range planning context is in a state of flux, and there is more to be learned in terms of issues and roles and responsibilities of different entities. MTC is committed to exploring future refinements with interested members of the environmental justice community. As a first step, MTC will outline what additional work activities would be most productive and seek further input from the environmental justice community in helping to prioritize this work in the months following the adoption of the RTP.

**Environmental Justice Report
For the 2001 Regional Transportation Plan
For The San Francisco Bay Area**

**Appendix A
Detailed Model Results**

